Thesis title: The possibility to reduce alcohol degree in wine: experience in the production of red wines

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Date & location of the oral examination (if known) : 13/07/2016

Confidential: ☐ Yes ☐ No

Abstract (max 300 words)

Topic position & objectives:
Influence of global warming and changing consumer preferences is noticeable even in traditionally "cold" zones such as Piedmont in Italy. Many factors contribute to this issue but as a result a winemaker have to encounter with a must with excessive sugar content. And it is necessary to have tools to handle this problem.

Methods:
During this work have been tested two methods to reduce alcohol content of wines made from autochthonous piedmonts grape varieties that haven't been largely studied before: sequential inoculation of non-Saccharomyces yeast and applying of reverse osmosis to remove part of the sugar content from must.

Results:
The use of sequential inoculation of Candida zemplinina with Saccharomyces cerevisiae wasn't fully successful and demand further investigation.
At the same time use of reverse osmosis for reduction of sugars in must before fermentation has showed decent potential for Barbera cultivar preserving large amount of aroma compounds and keeping wine easy appreciable

Main conclusions:
As a result of the analysis performed it was discovered, that even if wines are statistically different according to many parameters, the treated sample is close to the control and the differences are often explained by individual winemaking processes and not by reverse osmosis treatment.
Thus, the reverse osmosis technique may be used for must treatment when applying of viticulture methods is impossible in order to produce bright and young wines.

Keywords (5):
Candida zemplinina; reverse osmosis, alcohol reduction; non-Saccharomyces; ethanol content